

**REMARKS**

Acknowledgment of Applicant's priority claim appears to be properly stated in the Office Action at hand.

Claim 22 has been objected to as being dependent on Claim 1 and being listed after independent Claim 11. The foregoing amendments now recite Claim 22 as an independent claim. Thus, the objection is believed to be overcome and the claims meet 37 C.F.R. 1.75.

Claims 1-24 have been rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Applicant thanks the Examiner for the suggestions made on pages 3-4 of the Office Action at hand toward clearer phrasing of statutory subject matter in the claims. In particular, base Claims 1, 11 and 21-23 have now been amended to recite "computer implemented process" or "computer system" for designing a "computer model" based system architecture employing a "multi-layer mathematical model implemented on a computer".

With regard to base Claim 23, that claim is now amended to recite a computer readable memory device with a set of computer operating instructions embodied on the memory device. As such the claim as a whole is believed to constitute tangible matter. Support for this amendment is found at least on page 13, lines 17-20 of the Specification as originally filed. No new matter is introduced.

With regard to Claim 24, that claim is now cancelled.

Given the foregoing amendments, Claims 1-23 are believed to meet the statutory subject matter requisite of 35 U.S.C. § 101. Acceptance is respectfully requested.

Claim 1 has been rejected under the judicially-created doctrine of obviousness type double patenting as being unpatentable over Claims 21 and 22 of U.S. Patent No. 6,560,569. Claim 11 has similarly been rejected under the doctrine of obviousness type double patenting in view of Claims 3-5 of U.S. Patent No. 6,311,144. Claim 21 has been rejected under the judicially-created doctrine of obviousness type double patenting as being unpatentable over Claim 17 of U.S. Patent No. 6,560,569.

The attached terminal disclaimers in compliance with 37 C.F.R. 1.321(c) are believed to overcome these double patenting rejections. The terminal disclaimers show that the subject patent application and conflicting patents (U.S. Patents 6,560,569 and 6,311,144) are commonly owned.

Acceptance is respectfully requested such that the double patenting rejections are overcome.

Claims 1-5 and 21-24 have been rejected under 35 U.S.C. § 103 as being unpatentable over EUROEXPERT - Best Practices: French Social Security - UNEDIC dated 1992 in view of IEEE article "An Introduction to Six Sigma with a Design Example" by Robert White dated 1992.

Briefly, the present invention is directed to the designing of the architecture of an information system (system architecture). That is, the present invention provides a software tool for enabling a system engineer to create an initial system architecture design and to test (more at predict) performance of that design. Further the present invention performs "what-if" scenarios and determines changes in performance in variations of the proposed design.

In a preferred embodiment the present invention software tool employs a multi-layer mathematical model of the proposed system architecture. The mathematical model is based on a business process design which describes business processes and defines business requirements for each business process. The multi-layer mathematical model includes a business layer, an application layer and a technology layer. The present invention provides model performance metrics at each of these layers and compares model performance metrics with the business requirements. Where unacceptable performance metrics exist, the present invention enables the proposed system architecture to be modified and updates the performance metrics at each layer. If the performance metrics satisfy the business requirements, then the present invention provides an output description of the proposed system architecture.

The EUROEXPERT cited reference is directed to analyzing and upgrading an existing system in contrast to the designing of a proposed system architecture in the present invention. That is, EUROEXPERT analyzes measured performance of an existing system. This is quite different than predicting or projecting performance of a proposed (not in existence) system as in the present invention. The cited IEEE article by Robert White is directed to industrial design for electronic circuits in the manufacturing of circuit boards. This industrial design for electronics is in contrast to the system architecture designing of the present invention. Further White is directed to a discrete event approach whereas the present invention considers the continuous service of the proposed system architecture and predicts performance thereof. At the heart of

heart of White is a reliability objective where the number of defects is targeted to be less than six out of one million opportunities. In contrast, the present invention is not directed toward reliability but rather prediction of performance of a proposed system architecture.

The foregoing patentable distinctions of the present invention over the cited references are found in base Claims 1, 11 and 21-23 with the language, or similar language, of

"A computer implemented process for designing a computer model based system architecture, comprising...a multi-layer mathematical model of a proposed system architecture...the multi-layer mathematical model being implemented on a computer and the layers of the multi-layer model comprising a business layer, an application layer and a technology layer;...modeling performance metrics for each layer of the multi-layer model of the proposed system architecture..."

Neither EUROEXPERT nor White individually or in any combination imply, suggest or make obvious the claimed process or system for designing a system architecture using a multi-layer mathematical model of the proposed system architecture and modeling performance metrics for each layer of the multi-layer model of the proposed system architecture as now claimed in each of the base Claims 1, 11, 21, 22 and 23. Claims 2-5 are dependent on Claim 1 and thus inherit this claim language and Claim 24 is now cancelled. Thus, the § 103 rejection of Claims 1-5 and 21-24 in view of EUROEXPERT and White is believed to be overcome. Acceptance is respectfully requested.

Claims 6-20 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over EUROEXPERT and the IEEE article by White in further view of U.S. Patent No. 6,532,465 issued to Hartley.

Claims 6-10 are dependent on base Claim 1 and Claims 12-20 are dependent on base Claim 11. Thus the foregoing arguments also apply here.

Hartley does not add to EUROEXPERT and White the performance prediction of a proposed system architecture as in the present invention as now claimed. Further, Hartley does not disclose the use of a multi-layer mathematical model of proposed system architectures in contrast to the present invention as now claimed.

In support of the foregoing arguments the base Claims 1 and 11 as now amended recite "...a multi-layer mathematical model of a proposed system architecture...modeling performance

metrics for each layer of the multi-layer model of the proposed system architecture..." (Claim 1) and

"...a multi-layer mathematical model of a proposed system architecture supporting the business process design...the performance modeling module modeling performance metrics for each layer of the multi-layer model of the proposed system architecture..." (Claim 11).

Claims 6-10 depend on base Claim 1 and thus inherit these claim limitations. Likewise, Claims 12-20 are dependent from base Claim 11 and inherit the noted claim limitations.

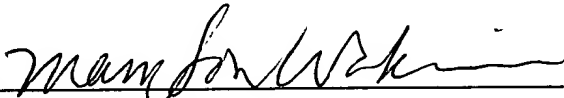
No combination of the cited references makes obvious the present invention as now claimed. Thus the § 103 rejection of Claims 6-20 is believed to be overcome. Acceptance is respectfully requested.

### CONCLUSION

In view of the above amendments and remarks, it is believed that all pending claims (Claims 1-23) are in condition for allowance, and it is respectfully requested that the application be passed to issue. If the Examiner feels that a telephone conference would expedite prosecution of this case, the Examiner is invited to call the undersigned.

Respectfully submitted,

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